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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/922,845 | 08/07/2001 | Kazumi Yokota | D-1124 | 8639 |

7590 03/06/2003
KANESAKA AND TAKEUCHI
1423 Powhatan Street
Alexandria, VA 22314

EXAMINER

GEISEL, KARA E

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2877

DATE MAILED: 03/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,845

Applicant(s)

YOKOTA ET AL.

Examiner

Kara E Geisel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/07/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

The certified copy has been filed in this application on August 7th, 2001.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Granger (USPN 5,164,844).

In regards to claim 1, Granger discloses a detector comprising a package having a light-receiving window (fig. 2, 51) and a base (fig. 2, 56) as a light receiving surface, and a plurality of detection elements (fig. 2, 53 and column 4, lines 20-25) having different spectral characteristics (column 4, lines 29-34), the detection elements being arranged side by side on the base to be stored in the package (fig. 2).

In regards to claim 2, the package includes a cover attached to the base (the two sides of the housing fig. 2, 56).

In regards to claim 5, Granger discloses an integrating sphere measuring device comprising a detector including a package having a light-receiving window (fig. 2, 51) and a base (fig. 2, 56) as a light receiving surface, and a plurality of detection elements having different spectral sensitivity characteristics (fig. 2, 53 and column 4, lines 20-34), the detection elements being arranged side by side on the base to be stored in the package (fig. 2), and an integrating sphere (fig. 2, 27) having a light outgoing window (fig.

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2, 51) through which a light is ejected outside the integrating sphere, the detector being attached to the light outgoing window (fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Granger (USPN 5,164,844) in view of Suarez-Gonzalez et al. (USPN 5,084,747).

In regards to claim 3, Granger discloses a set of detectors that uses filters to change the spectral sensitivity between each detector, but does not disclose the base materials of the detector. However, it is well known in the art that instead of using filters to change the spectral sensitivity characteristics of detector elements, one can use the different base materials to change the characteristics.

For example, Suarez-Gonzalez discloses a set of three detectors each with a different spectral sensitivity. Two of the detectors are silicon and the other is Indium Gallium Arsenide. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use

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detection elements made of different base materials in Granger's system, instead of using the filters, in order to change the spectral sensitivity of each of the elements.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Granger (USPN 5,164,844) in view of Miyawaki (USPN 5,084,747).

In regards to claim 4, Granger discloses a set of detectors which uses filters to change the spectral sensitivity between each detector, but does not disclose the base materials or the composition ratios of the detector. However, it is well known in the art that instead of using filters to change the spectral sensitivity characteristics of detector elements, one can use the same base material but different composition ratios to change the characteristics.

For example, Miyawaki teaches a detector with multiple elements (fig. 2) where each of the elements have different spectral sensitivity characteristics (column 2, lines 40-48). In order to do this, the elements are formed of the same base material (silicon), and each element has different composition ratios (column 4, lines 22-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Miyawaki's elements formed of the same base materials having different composition ratios to change the spectral sensitivity characteristics of the elements instead of using Granger's filters for the same purpose.

Allowable Subject Matter

Claim 6 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

As to claim 6, the prior art of record, taken alone or in combination, fails to disclose or render obvious a spectrophotometer comprising an integrating sphere, a detector attached to the sphere and including a plurality of detection elements having different spectral characteristics, the elements being switched in accordance with a measured wavelength range, and a package fixed to the integrating sphere

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having a light receiving window for receiving light from the sphere and a base as a light receiving surface, wherein the detection elements are arranged side by side on the base and stored in the package.

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is Ando et al. (USPN 5,442,483), Berg et al. (USPN 6,061,140), and Hill (USPN 6,396,040).

Ando discloses a near infrared analyzer comprising an integrating sphere, a package attached to the sphere via a light receiving window and having a base with a light receiving surface, a set of detectors on the light receiving surface that measure different spectral characteristics of the light.

Berg discloses a spectrophotometer comprising an integrating sphere, a package having light receiving windows and a base as a light receiving surface, and a plurality of detection elements arranged side by side on the base and stored in the package.

Hill discloses two photodiodes arranged in a housing side by side, wherein the diodes are made of two different base materials so that the diodes have different spectral sensitivity characteristics.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is 703 305 7182. The examiner can normally be reached on Monday through Thursday, 8am to 5pm and every other Friday 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 703 308 4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9318 for regular communications and 703 872 9319 for After Final communications. For inquiries of a general nature, the Customer Service fax number is 703 872 9317.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 1782.

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A handwritten signature in black ink, appearing to read 'F.L. Evans', with a stylized flourish extending from the end.

F.L. Evans
Primary Examiner
Art Unit 2877

KEG

KEG
March 3, 2003